

Diabetes Life Lines



A newsletter from your County Extension Office
Vol. 18 • No. 2 • Spring 2004

Carbohydrate Counting and “Low-Carb” Foods

The flood of “low-carbohydrate” foods now appearing on grocery store shelves and in restaurants may at first glance seem like a dream come true for someone with diabetes. Less carbohydrate means less effect on blood glucose, right?

Most of the new “low-carbohydrate” foods were created as a marketing ploy to capitalize on the popularity of low-carbohydrate weight loss diets. Although some of the ingredients may have been altered to reduce the carbohydrate, most of these foods are not as low in carbohydrate as the package implies, and the difference in calories is very little. So, over-indulging in these “low-carb” foods may not help your waistline as you had planned.

Many food manufacturers have caused a lot of confusion for people with diabetes by advising consumers to ignore the Total Carbohydrate listed on the food label of “low carbohydrate” products and to use the lower amount listed on the package as “net carbs,” “effective carbs,” or “impact carbs.” These are terms that manufacturers have created and have not been approved by the FDA. For example, the Atkins Nutritionals’ Cookies ‘n Creme Advantage Bar contains 22 grams of Total Carbohydrates and 220 calories. On the front of the package it lists “Only 2 grams of Net Carbs.” This may seem like a great snack to the carbohydrate-conscious dieter and an invitation to overindulge. To the person adjusting insulin based on how much carbohydrate they eat, it can cause confusion and inappropriate insulin doses.

Naturally-occurring carbohydrates may be replaced by other ingredients that are higher in protein like soy flour, higher in fat like nuts, or higher in fiber. Sugar alcohols like sorbitol or mannitol are often used to



replace some of the sugar. Although food manufacturers suggest that sugar

alcohols, fiber, and other ingredients like glycerin do not affect blood glucose levels and therefore should not be counted, that isn't true.

Sugar alcohols (or polyols) provide about half the calories of sugar because only part of the sugar alcohol is absorbed. They do effect blood glucose levels, although less than sugars. Their use is limited because larger amounts can cause gas, cramping, or diarrhea in some people.

Fiber is not completely digested and absorbed like other carbohydrates. While the fiber found in cereals provides virtually no calories, the fiber in fruits and vegetables does provide some. Foods containing fiber will likely have less effect on your blood glucose levels than other types of carbohydrates. So if you are adjusting your insulin based on carbohydrate counting, you can subtract the grams of dietary fiber from the Total Carbohydrate. This is only necessary if you are getting 5 or more grams of fiber per servings; otherwise, the effect is probably not significant.

"Nutrition" or "energy" bars sometimes contain glycerin, an ingredient used as a sweetener and to retain moisture. Because it is a polyol, it may affect the blood glucose, and according to the FDA, glycerin should be counted in the grams of Total Carbohydrate.

The bottom line is that you should ignore the carbohydrate

information on the front of a package and instead go by the Total Carbohydrate information on the Nutrition Facts panel as you've been taught. If you adjust your insulin based on the amount of carbohydrate you eat, you can subtract 1/2 the carbohydrate from sugar alcohols and all of the dietary fiber from the Total Carbohydrate if it contains more than 5 grams. You can check your blood glucose response to any food by monitoring your blood glucose two hours after a meal.

Nutrition Facts	
Total Carbohydrate	15 g
Dietary Fiber	6 g
Sugars	3 g
Sugar Alcohols	8 g

15 g
- **6 g**
- **4 g**
5 g Carbs

*(Subtract fiber if over 5 grams.
Subtract 1/2 sugar alcohols.)*

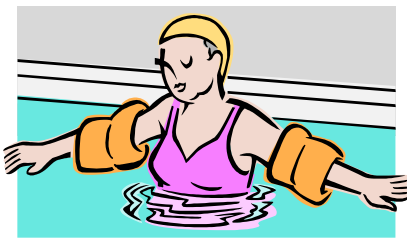
If you're eating less carbs to try to lose weight, remember that just as people trying to eat a low-fat diet years ago found out that they could gain weight by eating too many low-fat or fat-free foods, the same holds true with eating too many low-carb foods. The truth is that calories do count.

Exercising Safely with Diabetes Complications

Physical activity can do so much for you if you have diabetes - from giving you more energy and lifting

your mood to improving your blood glucose levels, keeping your heart healthy, and improving your sex life. There are so many benefits that it seems a waste not to take advantage of them.

So, what's stopping you? If you're concerned because you have some of the complications of diabetes - heart disease, high blood pressure, neuropathy, or decreased vision, don't



let your diabetes stop you. In fact, regular physical

activity improves blood pressure and strengthens your heart. Most moderate lifestyle activities are safe, although some activities may need to be modified so that you can perform them safely.

If you have diabetes complications, it is important that you first check with your doctor to see if you need an exercise stress test. Your diabetes team can give you more specific guidelines for exercise based on your test results. Following are some general guidelines for exercising safely with complications.

- **Heart Disease**

Avoid strenuous activities like heavy lifting or straining and exercising in extreme cold or heat. Choose more moderate activities like walking, swimming, biking, and do only

moderate lifting and stretching. Your doctor may suggest a supervised cardiac rehab program when you first begin.

- **High Blood Pressure**

Make sure your blood pressure is in control before you begin. Avoid very strenuous activity that may increase your blood pressure too much like heavy lifting or straining. Moderate activities like walking, water-exercises, and stretching are good choices. Your doctor may recommend that you monitor your blood pressure after exercise.

- **Retinopathy (eye disease)**

Be sure to check with your doctor to determine your level of retinopathy. Mild retinopathy does not usually require any specific changes in activity. If you have proliferative retinopathy (active bleeding in the eyes), you should avoid activities that increase pressure to your eyes or head like heavy weight lifting or straining, activities that cause jarring or bouncing like jogging or high-impact aerobics. You should avoid activities that require you to bend your head below your waist as in toe-touching. Activities that cause extreme changes in pressure such as scuba diving should be avoided. Instead, choose moderate, low-impact activities like walking, stationary cycling, water exercises, and daily chores that don't require lifting or bending your head below your waist.

- **Neuropathy (nerve damage)**

If you have diabetic neuropathy, you may have decreased sensation to your feet. This can result in injury to your feet during exercise. If you don't feel blisters and soreness in your feet, you may continue exercising without realizing that you're hurting your feet. Avoid activities that put a lot of pressure on your feet (weight-bearing) like running, jogging, or prolonged walking. Instead, choose activities like biking, swimming, chair exercises, arm exercises, and stretching. Check your feet daily, and especially after exercise for blisters, reddened areas, or injuries.

- **Nephropathy (kidney disease)**

Choose less strenuous activities like walking, swimming, and water exercises that do not increase your blood pressure.

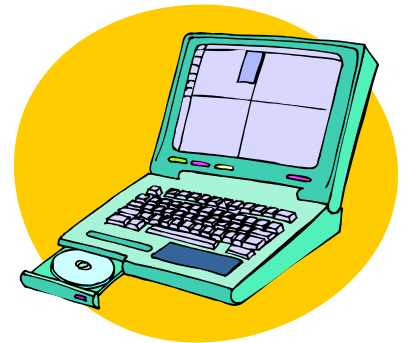
The potential benefits of physical activity for people with diabetes are great. Be sure to ask your diabetes care team to help you determine the safest and the best type of exercise based on your medical history and any complications you have.

New Focus on Diabetes CD

If you're interested in learning more about diabetes, a new CD developed by the University of Georgia Extension Service may be just what you're looking for. The program entitled *Focus on Diabetes* was designed to provide an interactive, fun

way to learn about diabetes at your own pace. It features three characters who have diabetes and shows how they adapt to the challenges of living with diabetes. Animations, illustrations, and activities help reinforce the information presented.

You don't need to be a computer expert to view the program. The lessons are easy to follow as long as you can click, drag, and roll over images with a computer mouse. A connection to the internet is required for a few features. You can preview the program at the web site below.



If you'd like to order a copy, use the order blank on the web site or send a check for \$15 (includes shipping and handling) for each CD made payable to The University of Georgia Cooperative Extension Service. Please include your address and phone number and mail to:

Agriculture Business Office
The University of Georgia
Room 215 Conner Hall
Athens, GA 30602

Sorry, phone orders are not accepted.

To preview *Focus on Diabetes* or to place an order, go to:
www.fcs.uga.edu/extension/diabetes/focus.html

Recipe Corner

Whole Grain French Toast

This healthier version of a traditional breakfast favorite can be topped with your favorite fruit instead of syrup.

4 slices whole grain bread	1 teaspoon Splenda granular (or sugar)
1 egg white	Dash of vanilla extract
1/4 cup egg substitute (or 1 whole egg)	Non-stick cooking spray
1/3 cup nonfat milk	Powdered sugar
1/2 teaspoon ground cinnamon	

1. In a large bowl, lightly beat egg white and egg substitute. Stir in milk, cinnamon, sugar or Splenda, and vanilla. Dip both sides of each slice of bread into batter.
2. Lightly spray non-stick griddle pan with cooking spray. Add several bread slices and cook over medium heat until lightly browned; turn each and brown other side. Remove to warm platter or keep warm in 200 degree oven. Dust with light sprinkling of powdered sugar just before serving. Garnish with a few blueberries or raspberries.

Serves 4 - 1 slice per serving*

Carbohydrate Choices: 1 Exchanges: 1 starch

Calories: 97 Carbohydrate: 18 grams Fat: 1 gram
Sodium: 123 milligrams Fiber: 3.1 grams Cholesterol: <1 milligram

* using egg substitute and Splenda

Suggested Menu

<u>Menu Item</u>	<u>Exchanges</u>	<u>Carbohydrate</u>
1 slice <i>Whole Grain French Toast</i> *	1 starch	15 grams
1 teaspoon margarine	1 fat	†
6 oz. fruit flavored, sugar-free, non-fat yogurt	1 milk	12 grams
1/2 grapefruit	1 fruit	15 grams

* This issue's featured recipe † insignificant

Note: Portions may need to be adjusted for your meal plan

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Dear Friend,

Diabetes Life Lines is a bi-monthly publication sent to you by your local county Extension agent.

It is written by Food and Nutrition Specialists at the University of Georgia, College of Family and Consumer Sciences. This newsletter brings you the latest information on diabetes, nutrition, the diabetic exchange system, recipes, and important events.

If you would like more information, please contact your local county Extension office.

Yours truly,

County Extension Agent

Janine Freeman, Principal Writer

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, The University of Georgia College of Agricultural and Environmental Sciences and the U.S. Department of Agriculture cooperating.

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